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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/867,323

05/29/2001

Jagdish C. Tandon

D/A0155

6011

7590

03/29/2004

Patent Documentation Center
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EXAMINER

SAFAIPOUR, HOUSHANG

ART UNIT

PAPER NUMBER

2622

DATE MAILED: 03/29/2004

9

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/867,323

Applicant(s)

TANDON ET AL.

Examiner

Houshang Safaipoor

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-17 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 29 May 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 2, 4-14 and 16 are rejected under 35 U.S.C. 102(b) as being anticipated by Usui (U.S. Patent No. 5,055,921).

Regarding claim 1, Usui discloses an imaging apparatus comprising: a first linear array of photosites, arranged in an array direction, and having a first spatial resolution along the array direction; a second linear array of photosites, having a second spatial resolution, different from the first spatial resolution, along the array direction; and means for moving an original image relative to the linear arrays of photosites in a process direction perpendicular to the array direction (figs. 4 and 5, col. 2, lines 50-66).

Regarding claim 2, Usui discloses the apparatus of claim 1, the first linear array of photosites having a first color filtering arrangement; and the second linear array of photosites having a second color filtering arrangement, different from the first color filtering arrangement (col. 2, lines 62-68).

Regarding claim 4, Usui discloses the apparatus of claim 2, the first color filtering arrangement being green, and the second color filtering arrangement being a primary color (col. 2, lines 62-68).

Regarding claim 5, Usui discloses the apparatus of claim 1, the first linear array of

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photosites having an effective length n along a process direction perpendicular to the array direction, and the second linear array of photosites having an effective length along the process direction equal to n . Regarding the size of the photosites, Usui discloses different embodiments that the width of the color elements of the sensor is increased, however, he further discloses that it is possible to vary the widths of at least two of the color elements of the sensor (col. 7, lines 1-65). Therefore with this disclosure the size of the photosites can be changed to achieve the desired resolution.

Regarding claims 6-11, the argument analogous to those presented for claim 5 are applicable to claims 6-11.

Regarding claim 12, Usui discloses the apparatus of claim 1, further comprising a third linear array of photosites, the third linear array of photosites having a spatial resolution along the array direction equal to the spatial resolution of the second linear array of photosites (col. 2, lines 50-66).

Regarding claim 13, Usui discloses the apparatus of claim 12, the third linear array of photosites having a third color filtering arrangement, different from the second color filtering arrangement (col. 2, lines 50-66).

Regarding claim 14, Usui discloses the apparatus of claim 13, the first color filtering arrangement being green, the second color filtering arrangement being a first non-green primary color, the third color filtering arrangement being a second non-green primary color different from the first non-green primary color (col. 2, lines 50-66).

Regarding claim 16, Usui discloses the apparatus of claim 1, wherein the first linear array is associated with a first CCD, and the second linear array is associated with a second CCD (fig.

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5, three-line CCD).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over Usui (U.S. Patent No. 5,055,921).

Regarding claim 17, the use of a single transfer circuit connected to an output line is well known and routinely implemented in the art. Therefore, it would have been obvious to a person of an ordinary skill in the art at the time the invention was made to utilize a single transfer unit in Usui's apparatus.

Claims 3 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Usui (U.S. Patent No. 5,055,921) and further in view of Spears (U.S. Patent Application Publication No. 2002/0093694).

Regarding claims 3 and 15 Usui does not explicitly disclose white filtering arrangement. Spears discloses such filtering in the structure of his photosensor assembly (fig. 5). Therefore, it would have been obvious to a person of an ordinary skill in the art at the time the invention was made to utilize Spears arrangement in Usui's apparatus.

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Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Houshang Safaipoor whose telephone number is (703)306-4037. The examiner can normally be reached on Mon.-Thurs. from 6:30am to 5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward L Coles, Sr. can be reached on (703)305-4712. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Houshang Safaipoor
Patent Examiner
Art Unit 2622
March 19, 2004


EDWARD COLES
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER